

## ABSTRACT OF THE DISCLOSURE

An wireless terminal includes a demodulating unit which comprises an FV (fading vector) estimating unit for receiving a CPICH spread/demodulated signal to output an FV signal with a reduced noise ratio; a phase synchronization unit for multiplying a PDSCH spread/demodulated signal with a complex conjugate of the FV signal to correct the phase offset of the PDSCH I and Q signals to send the resulting PDSCH I and Q signals to a multi-level QAM amplitude synchronization detection unit and to an amplitude demodulating unit; a first-quadrant transformation unit for collecting the second to fourth quadrant signals of the phase-synchronized PDSCH I and Q signals; and a threshold value detecting unit for calculating a multi-level QAM threshold value from the first quadrant signals and the FV signals to send the threshold signal to an amplitude demodulating unit. The amplitude demodulating unit effects amplitude demodulation to output multi-level QAM demodulated signals. The threshold value detecting unit previously assumes a plural number of probabilities as to which of the levels received data belongs to and, using a plural number of the data, raises the precision of the assumed data. The threshold value is estimated, using the frequencies and differences of the respective levels, from the assumed plural threshold values.